

## CURRENT INDUSTRIAL REPORTS



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# Copper Controlled Materials

FIRST QUARTER 1981

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The statistics in this publication are based on a survey of manufacturers and represent total U.S. shipments of copper-base mill and foundry products. Estimates are included for

companies whose reports were not received in time for tabulation. A more complete description of this survey appears on page 5.

**THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS**

**Note: The graphic presentation for this survey is not shown because of pending revisions for 1980.**

Table 1. SUMMARY OF SHIPMENTS OF COPPER-BASE MILL AND FOUNDRY PRODUCTS

(Millions of pounds - metal weight)

Quarter and year	Total	Brass mill products		Copper wire mill products <sup>1</sup>			Brass and bronze foundry products <sup>3</sup>	Copper-base powder mill product
		Alloyed	Unalloyed	Bare wire <sup>2</sup>	Insulated communication wire	Other insulated wire		
1981								
First quarter.....	1,688	461	426	75	188	407	119	12
1980								
Fourth quarter.....	1,393	372	r 270	67	r 154	401	116	13
Third quarter.....	1,342	320	212	61	221	412	108	8
Second quarter.....	1,398	355	232	79	203	398	120	11
First quarter.....	1,659	440	276	86	219	482	141	15
1979								
Fourth quarter.....	1,586	394	228	59	193	546	152	14
Third quarter.....	1,564	433	266	48	216	438	148	15
Second quarter.....	1,749	511	295	67	229	468	162	17
First quarter.....	1,784	538	287	62	208	514	155	20
1978								
Fourth quarter.....	1,601	454	251	62	196	481	142	15
Third quarter.....	1,483	395	225	53	208	455	132	15
Second quarter.....	1,651	472	262	65	210	468	157	17
First quarter.....	1,531	429	224	58	192	463	149	16
1977								
Fourth quarter.....	1,416	378	204	62	186	435	137	14
Third quarter.....	1,417	428	229	55	156	388	146	15
Second quarter.....	1,625	472	256	60	222	442	155	18
First quarter.....	1,522	448	253	53	184	422	145	17

Note: Detail may not add to totals due to independent rounding.

<sup>r</sup>Revised by 5 percent or more from previously published figures.<sup>1</sup>Represents copper content weight, rather than metal weight.<sup>2</sup>Represents uninsulated, bare tinned, and/or alloy coated wire.<sup>3</sup>Source: Bureau of the Census, Current Industrial Reports Series M33E, Nonferrous Castings.

Table 2. SHIPMENTS OF COPPER-BASE MILL AND FOUNDRY PRODUCTS

(Millions of pounds - metal weight)

Product	1981		1980	
	First quarter	Fourth quarter	First quarter	First quarter
Total shipments.....	1,688		1,393	1,659
Copper-base mill products.....	887		r 642	716
Copper-base alloy:				
Sheet and strip <sup>1</sup> .....	214		174	199
Rod, bar, and wire.....	210		168	207
Tube and pipe.....	37		30	34
Unalloyed copper:				
Sheet and strip.....	145		r 55	62
Rod, bar, and wire <sup>2</sup> .....	104		r 49	31
Tube and pipe.....	177		r 166	183
Copper wire mill products <sup>3</sup> .....		670	r 622	787
Bare wire <sup>4</sup> .....	75		67	86
Insulated communication wire.....	188		r 154	219
Other insulated wire.....	407		401	482
Brass and bronze foundry products <sup>5</sup> .....		119	116	141
Copper-base powder mill products.....		12	13	15
Copper-base alloy:				
Granular.....		r	2	3
Flake.....		(Z)	(Z)	1
Unalloyed copper:				
Granular.....		10	10	10
Flake.....		1	1	1

Note: Detail may not add to totals due to independent rounding. Monthly shipments data for brass mills and copper wire mills of primary companies are available in Current Industrial Reports Series M33K, Inventories of Brass and Copper Wire Mill Shapes.<sup>r</sup>Revised by 5 percent or more from previously published figures. (Z) Less than 500,000 pounds.<sup>1</sup>Military ammunition cups and dials are included on net-weight basis, i.e., excluding the weight of the webbing scrap generated in the cupping and discing.<sup>2</sup>Does not include electrical wire.<sup>3</sup>Represents copper content weight, rather than metal weight.<sup>4</sup>Represents uninsulated, bare, tinned, and/or alloy coated wire.<sup>5</sup>Source: Bureau of the Census, Current Industrial Reports Series M33E, Nonferrous Castings.

Table 3. COPPER-BASE MILL PRODUCTS, SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION: 1981 AND 1980

(Quantity in millions of pounds; value in \$1,000)

Product <sup>1</sup>	Manufacturers' shipments	Exports of domestic merchandise <sup>1,2</sup>		Estimated producers' value <sup>3</sup>	Percent, exports to manufacturers' shipments (quantity)	Imports for consumption <sup>1,4</sup>		Calculated import duty	Apparent consumption <sup>5</sup> (quantity)	Percent, imports to apparent consumption (quantity)
		Quantity	Value at port			Quantity	Value			
<b>FIRST QUARTER 1981</b>										
Copper-base mill products <sup>6</sup> .....	974	54	78,495	74,673	6	59	78,614	1,729	979	6
Brass mill products:										
Copper-base alloy:										
Sheet and strip.....	214	14	23,099	22,009	7	25	29,285	639	430	6
Rod, bar, and wire.....	210	5	6,556	6,247	2	11	18,035	253	44	25
Tube and pipe.....	37	4	9,280	8,842	11					
Unalloyed copper:										
Sheet and strip.....	145	2	2,821	2,688	1	12	15,114	250	242	5
Rod, bar, and wire.....	104	17	14,771	14,074	16	6	8,550	211	176	3
Tube and pipe.....	177	7	10,571	10,072	4					
Copper wire mill products, bare wire.....	75	4	10,424	9,932	5	4	6,270	317	75	5
Copper-base powder mill products:										
Copper-base alloy:										
Granular.....	1									
Flake.....	(2)									
Unalloyed copper:										
Granular.....	10									
Flake.....	1									
<b>FOURTH QUARTER 1980</b>										
Copper-based mill products <sup>6</sup> .....	722	54	74,391	70,683	8	40	55,184	1,210	708	6
Brass mill products:										
Copper-base alloy:										
Sheet and strip.....	174	7	11,532	10,988	4	15	17,715	400	345	5
Rod, bar, and wire.....	168	5	6,696	6,380	3	8	13,603	210	32	25
Tube and pipe.....	30	6	11,758	11,203	20					
Unalloyed copper:										
Sheet and strip.....	55	1	1,391	1,325	2					
Rod, bar, and wire.....	49	25	24,202	23,060	83	10	12,604	180	88	18
Tube and pipe.....	166	6	7,827	7,458	4	4	5,969	153	164	3
Copper wire mill products, bare wire.....	67	3	9,354	8,912	4	2	3,807	201	66	3
Copper-base powder mill products:										
Copper-base alloy:										
Granular.....	2									
Flake.....	(2)									
Unalloyed copper:										
Granular.....	10									
Flake.....	1									

<sup>1</sup>Revised by 5 percent or more from previously published figures. <sup>(2)</sup>Less than half the stated unit of measure.<sup>1</sup>Comparison of domestic manufacturers' shipments, export, and import codes for copper-base mill products appears in table 4.<sup>2</sup>Source: Bureau of the Census Report FT-410, U.S. Exports.<sup>3</sup>These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods, current adjustment factors (.9528 for industry group 335 relating to brass mill and copper wire mill products and .8318 for industry group 339 relating to copper-base powder mill products) are based on data for 1976 which are published in *Origin of Exports of Manufacturing Establishments*, M76 (AS)-8, appendix A.<sup>4</sup>Source: Bureau of the Census Report IM 145-X, U.S. Imports For Consumption and General Imports.<sup>5</sup>Apparent consumption is derived by subtracting exports from the total of net shipments plus imports.<sup>6</sup>This total does not include either insulated wire and cable products or brass bronze foundry products.

Table 4. COMPARISON OF DOMESTIC MANUFACTURERS' SHIPMENTS, EXPORT, AND IMPORT CODES FOR COPPER-BASE MILL PRODUCTS: 1980

Manufacturers' product descriptions (Import/Export descriptions)	Exports of domestic merchandise (Schedule B)	Imports for consumption (TSUSA)
Copper mill products:		
Copper-base alloy:		
Sheet, strip, and plate (flat).....	612.3360, 612.3370, 612.3380	612.3400, 612.3500, 612.3600, 612.3800, 612.3920, 612.3940,
Rod, bar, and wire (non-flat) <sup>1</sup> .....	612.4620	612.3960, 612.3980, 612.4000, 612.4100, 612.4300, 612.4410,
Tube and pipe.....	613.0520, 613.0530	612.4430, 612.4510, 612.4520, 612.5200, 612.6100, 612.6200,
Unalloyed copper:		612.6300, 612.6410, 612.6420, 612.8100, 612.8200
Sheet, strip, and plate (flat).....	612.3320	613.0600, 613.0800, 613.1000, 613.1100, 613.1200
Rod, bar, and wire (non-flat) <sup>1</sup> .....	612.4640	612.3000, 612.3120, 612.3140, 612.3160, 612.3200,
Tube and pipe.....	613.0540, 613.0550	612.5000, 612.6000, 612.8000
Copper wire mill products, bare wire.....	612.7420, 612.7440	613.0200, 613.0300, 613.0400
Copper base powder mill products:		612.7000, 612.7100, 612.7220, 612.7240, 612.7260, 612.7300
Copper-base alloy:		
Granular.....		
Flake.....	612.5400	612.5500, 612.5600
Unalloyed copper:		
Granular.....		
Flake.....		

<sup>1</sup>The import and export codes for this line do not include wire.

## DESCRIPTION OF SURVEY

*Scope of Survey*—This survey includes firms engaged in manufacturing copper-base mill products.

*Sampling Description*—The statistics in this publication were collected on Bureau of Industrial Economics Form ITA-9008, Copper Controlled Materials. The mailing panel for these surveys includes all known producers of brass mill products and copper-base powder products, as well as those manufacturers who produced 95 percent of wire mill products. The data for wire mill products are inflated to represent 100 percent coverage. There are 188 companies reporting on this survey.

*Survey Error*—The quarterly figures include estimates for respondents whose reports were not received in time for tabulation, as well as those establishments not included in the mailing panel. Such missing figures are "imputed" from prior reports and/or estimates and are generally limited to a maximum of 10 percent for any one item. Individual items with imputation greater than 10 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures. The probable range of difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

*Revision to Previous Period Data*—Statistics for previous quarters may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

*Seasonal Adjustment*—The data are not adjusted for seasonal variation.

## EXPLANATION OF TERMS

*Shipments*—Shipments by brass and bronze foundries include both shipments for sale (to the trade) and shipments for own use. Shipments for own use represent copper and copper-base alloy castings for use by the reporting company or an affiliate, subsidiary, or parent company, and also include castings produced and consumed at the sale location in the production of finished products.

Shipments by brass mills, copper wire mills, and copper-base powder mills include all controlled materials orders shipped by the respondent for his own account, by other copper-controlled materials producers for the respondent's account, or by the responding company under toll arrangements for the account of controlled materials consumers.

## COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import com-

modity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

*Domestic Output*—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

*Exports*—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Estimated producers' values of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance, and other charges applied from the producing plant to the export point.

*Imports*—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$501, effective March 1979 and for shipments under \$251 prior to March 1979. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Exports and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

h. *Geographic Area of Coverage*—Import and export data reflect the movement of merchandise into and out of the U.S. customs territory (the 50 States, the District of Columbia, and Puerto Rico). They do not include movements between the United States and its possessions. Domestic output (shipments) data exclude Puerto Rico and other outlying areas.

#### RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes quarterly figures and incorporates all revisions in the series for both the current and the previous year, thus providing a single reference copy to replace the quarterly publications.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M33E	Monthly	<i>Nonferrous Castings</i>
M33K	Monthly	<i>Inventories of Brass and Copper Wire Mill Shapes</i>
MA-33L	Annually	<i>Insulated Wire and Cable</i>
M3-1	Monthly	<i>Manufacturers' Shipments, Inventories, and Orders</i>
<i>Foreign Trade Reports</i>		
FT-410	Monthly	<i>U.S. Exports—Schedule E—Commodity by Country</i>
IM 145-X	Monthly	<i>U.S. Imports for Consumption and General Imports</i>

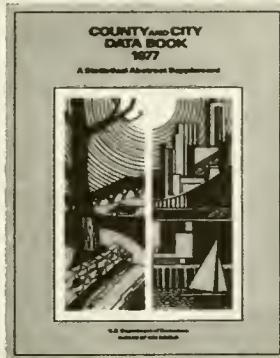
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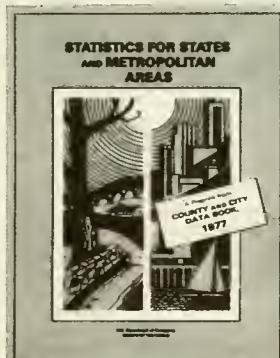
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